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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/074,188

02/12/2002

Peter G. Loges

56326-041 (IOPL-119)

6665

7590

11/07/2003

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EXAMINER

FASTOVSKY, LEONID M

ART UNIT

PAPER NUMBER

3742

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/074,188

Applicant(s)

LOGES ET AL.

Examiner

Leonid M Fastovsky

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3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 11-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 1130 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1- 4, 6-13, 22-23, and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauer (3,394,257) in view of Kuhn et al (1,572,395).

With regard to claims 1-2, 4, 6-9, 22-23, and 26-28, Moldenhauer teaches a radiation source comprising a base 7, a curved parabolic reflector 2, two pins 6 passing through the base 7, a first pin having a first portion, that extends at an angle with respect to the axis, a second pin having a second portion which extends at an angle with respect to the axis, a filament 11 helically wound around the pins, a window 3, and an inert gas contained within the enclosure, but does not disclose that the helically wound filament has a diameter that decreases along the axis and that a width of the filament is greater than space between adjacent coils. Kuhn shows such a helically wound filament 2. It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer to include a helically wound filament having a diameter decreasing along the axis and a width greater than the space between adjacent coils as taught by Kuhn as a matter of design choice, since the applicant has

not disclose that this type of filament solved any problems or is for any particular purpose, and it appears the the invention would perform equally well with existing filament. Moreover, as stated on Page 6 (Paragraph 25), the filament can be provided with a constant diameter.

With regard to claims 3, 12-13, and 29, Moldenhauer and Kuhn do not disclose an elliptic reflector comprising a non-ferrous metal, and coated or plated with at least one of the aluminum, gold and silver, and that the second pin includes a third portion and a fourth portion. It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer and Kuhn to use materials and an elliptic reflector as a matter of design choice, since the applicant has not disclose that these materials and elliptic reflector solved any stated problems or is for any particular purpose, and it appears that the invention would perform equally well with existing materials and reflector's shape.

3. Claims 5, and 14- 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauer and Kuhn as applied to claims 1-4, 6-13, 22-23, and 25-29 and further in view of Boland et al (5,438,233) and George et al (2002/0096492).

Moldenhauer and Kuhn disclose substantially the claimed features including a radiation source comprising a base, a curved reflector, two pins passing through the base, a filament helically wounded around the pins, and a window. Moldenhauer and Kuhn do not disclose that the window is made out of different materials, filament textured features, and emissions cut-off wavelength. Boland et al shows that window includes a sapphire and germanium (Col. 3, lines 50-65), George et al shows filament textured

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features (Col. 2, [11]), and Boland et al shows a cut-off wavelength (Col. 2, lines 50-65). It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer and Kuhn to use materials and a cut-off wavelength size as taught by Boland and filament textured features as taught by George et al to select an infrared wavelength spectrum.

4. Claims 24 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauer and Kuhn as applied to claims 1-4, 6-13, 22-23, and 25-29 and further in view of Karlsson (6,034,360).

Moldenhauer and Kuhn disclose substantially the claimed features including a radiation source comprising a base, a curved reflector, two pins passing through the base, a filament helically wound around the pins, and a window, but does not disclose filament and pin materials. Karlsson shows that filament comprises nickel-chromium and pins are made from Kovar (claims 10-11). It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer and Kuhn to use materials as taught by Karlsson to tune for an applicable frequency range.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 703-306-5482. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sang Paik can be reached on 703-308-1147. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

Leonid M Fastovsky  
Examiner  
Art Unit 3742  
SANG Y. PAIK  
PRIMARY EXAMINER



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November 6, 2003